

## **REMARKS/ARGUMENTS**

This Amendment and Response is responsive to the non-final Office Action dated October 7, 2010, setting forth a shortened three-month statutory period for reply. The Assignee thanks the Examiner for reviewing this application and issuing an Office Action.

Claims 1 and 34-65 are pending in the application, with claims 1, 57, 59 and 63 being independent claims. By this Amendment, claims 1, 56 and 57 are amended. Claims 59 and 63-65 are cancelled without intending to abandon or dedicate to the public any patentable subject matter. New claims 66-68 are added. Accordingly, after entry of this Amendment and Response, claims 1, 34-58, 60-62 and 66-68 remain pending, with claims 1 and 57 being independent claims.

### **I. Claim Rejections Under 35 U.S.C. § 101**

Claims 56, 59 and 63-65 are rejected under 35 U.S.C. § 101 because the claims are allegedly directed to non-statutory subject matter.

Claim 56 is amended to recite that the computer readable code is "embodied on a computer readable storage medium." Claim 56 is now believed to recite statutory subject matter. Accordingly, the Assignee respectfully requests reconsideration and withdrawal of the rejection of claim 56 under 35 U.S.C. § 101.

The remaining rejections under 35 U.S.C. § 101 are obviated by the cancellation of claims 59 and 63-65.

### **II. Claim Rejections Under 35 U.S.C. § 102**

Claim 63 is rejected under 35 U.S.C. § 102(b) as anticipated by US 6,188,832 issued to Ryan (hereinafter "Ryan '832"). Claim 63 is rejected under 35 U.S.C. § 102(b) as anticipated by US 7,236,683 issued to Quan (hereinafter "Quan"). The rejection under 35 U.S.C. § 102(b) is obviated by the cancellation of claim 63.

### **III. Claim Rejections Under 35 U.S.C. § 103**

A. Claims 1, 34-46, 48, 50, 54-57, 59-62 and 64-65 are rejected under 35 U.S.C. § 103(a) as unpatentable over US 5,325,448 to Ryan (hereinafter "Ryan '448") in view of Quan. For the following reasons, the Assignee respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. 103(a).

Independent claims 1 and 57 are amended to recite a "first pulse" having a frequency of between 1 MHz and 6MHz. Support for the amendments to claims 1 and 57 can be found in the specification at, for example, paragraph 37 and in Fig. 4. As explained in paragraph 36 of the application, the presence of the first pulse has been found to unexpectedly confuse the vertical synchronization separator components in the analogue to digital converter (ADC). ADC circuits, such as those found in video capture cards buffer the video signal into memory, expect fields to be of standard and equal lengths. The presence of the first pulse has been found to be mistaken for a vertical synchronization pulse and so impairs recording.

The high frequency of the wave form (1 MHz to 6MHz) has further been found to have little effect on television receiver circuits. Advantageously therefore, the protection feature does not reduce the quality of the playback of a legitimate video programme. The modifications to the horizontal synchronization pulse also mean that the ADC circuits are more sensitive to the presence of the pseudo vertical synchronization pulse, increasing its effect.

Ryan '448 discloses a hybrid digital/analog video recorder that is directed to preventing both analog and digital copying. (Ryan '448; Abstract). In one embodiment, the digital recorder portion of the hybrid video recorder is deliberately designed to be vulnerable to known analog anti-copying protection signals that target automatic gain control (AGC) circuits. (Ryan '448; column 8, ll. 34-45).

In one embodiment, Quan is directed to enhancing the playability of known copy-protected signals by adding a negative-going pulse and/or negative-going and positive-going pulse pairs to the front porch region of the copy-protected signal. (Quan; Abstract). In other embodiments, Quan enhances copy-protection by adding an amplitude-extending pulse to the horizontal synchronization pulse or to a pseudo sync pulse. (Quan; Abstract). Like Ryan '448, the Quan reference achieves copy-protection by pulses that target the AGC circuits in a recording device.

Both Quan and Ryan '448 achieve copy-protection by pulses that target the AGC circuits in a recording device. In sharp contrast to the claimed invention, neither Quan nor Ryan '448 disclose a copy-protection mechanism that targets the vertical synchronisation separator components in an analog to digital converter (ADC). Because the combination of Quan and Ryan '448 fails to disclose or suggest a copy-protection mechanism that targets the vertical synchronisation separator, the Assignee respectfully submits that the combination of Quan and Ryan '448 fails to render at least independent claims 1 and 57 obvious.

Dependent claims 34-46, 48, 50, 54-57 and 60-62 depend from and contain all the limitations of the independent claims 1 and 57. For at least the reasons that independent claims 1 and 57 are patentable, the Assignee respectfully submits that dependent claims 34-46, 48, 50, 54-57 and 60-62 are patentable. This Assignee makes this statement without waiving any independent basis of patentable set forth in dependent claims 34-46, 48, 50, 54-57 and 60-62. The Assignee reserves the right to argue the patentability of dependent claims 34-46, 48, 50, 54-57 and 60-62 in a separately filed response.

B. Claims 47, 49 and 51-53 are rejected under 35 U.S.C. § 103(a) as unpatentable over Ryan '448 in view of Quan and further in view of Ryan '832. For the following reasons, the Assignee respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. 103(a).

Dependent claims 47, 49 and 51-53 depend from and contain all the limitations of the independent claim 1. For at least the reasons that independent claims 1 is patentable, the Assignee respectfully submits that dependent claims 47, 49 and 51-53 are patentable. This Assignee makes this statement without waiving any independent basis of patentable set forth in dependent claims 47, 49 and 51-53. The Assignee reserves the right to argue the patentability of dependent claims 47, 49 and 51-53 in a separately filed response.

### **III. New Claims**

New claims 66-68 provide additional reasons for allowance. Claim 66 recites that "the frequency of the wave is 400MHz." Claim 67 recites that "the amplitude of the wave is in the range 0 to -300mV." Claim 69 recites "the amplitude of the wave is -200mV." The Assignee respectfully submits this claimed subject matter is not anticipated or rendered obvious by the cited prior art.

**CONCLUSION**

After entry of the above listing of claims and remarks, claims 1, 34-58, 60-62 and 66-68 remain in the application. In accordance with the amendments and arguments set forth herein, the Assignee respectfully submits the application and all claims are in a condition for allowance, and requests such prompt allowance.

The Assignee believes no fees or petitions are due with this filing. However, should any such fees or petitions be required, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 as necessary.

Should any issues remain that the Examiner believes may be dealt with in a telephone conference, he is invited to contact the undersigned at 303-629-3400.

Dated this 7 day of January, 2011.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Brian J. Ignat', is written over a horizontal line.

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